0068924

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0160-01 SAF-RC-001

Rad only X Chem only Rad & Chem

X Complete Partial

300 Area 334 Bldg

Cover Page

Report Identification Number: 06I-0160-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001
Payroll#: 0636267 COA R33400J45 1

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
11 Jan 2006	J10WV4	06I01307	NMAM 7300M	G060J011	MCE
11 Jan 2006	J10WV5	06I01308	NMAM 7300M	G060J011	MCE
11 Jan 2006	J10WV6	06I01309	NMAM 7300M	G060J011	MCE
11 Jan 2006	J10WV7	06I01310	NMAM 7300M	G060J011	MCE
11 Jan 2006	J10WV8	06I01311	NMAM 7300M	G060J011	MCE

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Name: Lisa M. Reid
Title: Chemist
Date: January 18, 2006

Case Narrative Page

Report Identification Number: 06I-0160-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001
Payroll#: 0636267

General Set Information: There are 8 samples in set 06I-0159-01 and 5 samples in set 06I-0160-01 which were analyzed for beryllium on MCE filter. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Samples were digested in a hot block set at 110°C for 40 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.01 ug/sample. .

Method Blank Analysis: No beryllium was found in the media blank sample above the Contract Required Detection Limit (CRDL).

Dilution(s): NA.

Laboratory Control Sample and Duplicate Analysis: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch. The LCS result was within the control limit of +/- 20%. The Relative Percent Differences (RPD) between the LCS and the LCSD was within the control limit of 20%.

Case Narrative Page

Replicate Analysis: Two samples in this batch were replicated. The RPD between the sample and the replicate was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples (µg/sample) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination (µg/L)

B = Concentration factor from sample preparation

$$= \frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$$

C = Dilution performed at time of analysis

Example Calculation: (1 µg/L) x (0.025 L/sample) x (1) = 0.025 µg/sample

Miscellaneous Comments: None.

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Salt Lake City, Utah 84123-2547

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Web Page: www.datachem.com
E-mail: lab@datachem.com

DATA CHEM LABORATORIES

Report Page

Report Identification Number: 06I-0160-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001
Payroll#: 0636267

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Beryllium µg/m³		Air Volume L	
J10WV4	06I01307	17 Jan 2006	<0.01	U	**		0.	
J10WV5	06I01308	17 Jan 2006	<0.01	U	**		0.	
J10WV6	06I01309	17 Jan 2006	<0.01	U	<0.015	U	675.09	
J10WV7	06I01310	17 Jan 2006	<0.01	U	<0.0094	U	1063.92	
J10WV8	06I01311	17 Jan 2006	<0.01	U	<0.0076	U	1310.00	
Limit of Detection (LOD)			0.01					
Required Detection Limit (RDL)								

U - Parameter not detected above LOD.
J - Parameter between LOD and RDL.

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DATA CHEM LABORATORIES

QC Summary Page

Report Identification Number: 06I-0160-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF: RC-001
Payroll#: 0636267

Batch ID: G060J011

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-240140-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
QC-240140-1	LCS	Beryllium	µg/sample	10.3	NA	10.0	103.	NA
QD-240140-1	LCSD	Beryllium	µg/sample	10.5	10.3	10.0	105.	1.88

MB - Method Blank
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MSD - Matrix Spike Duplicate
LD - Laboratory Duplicate

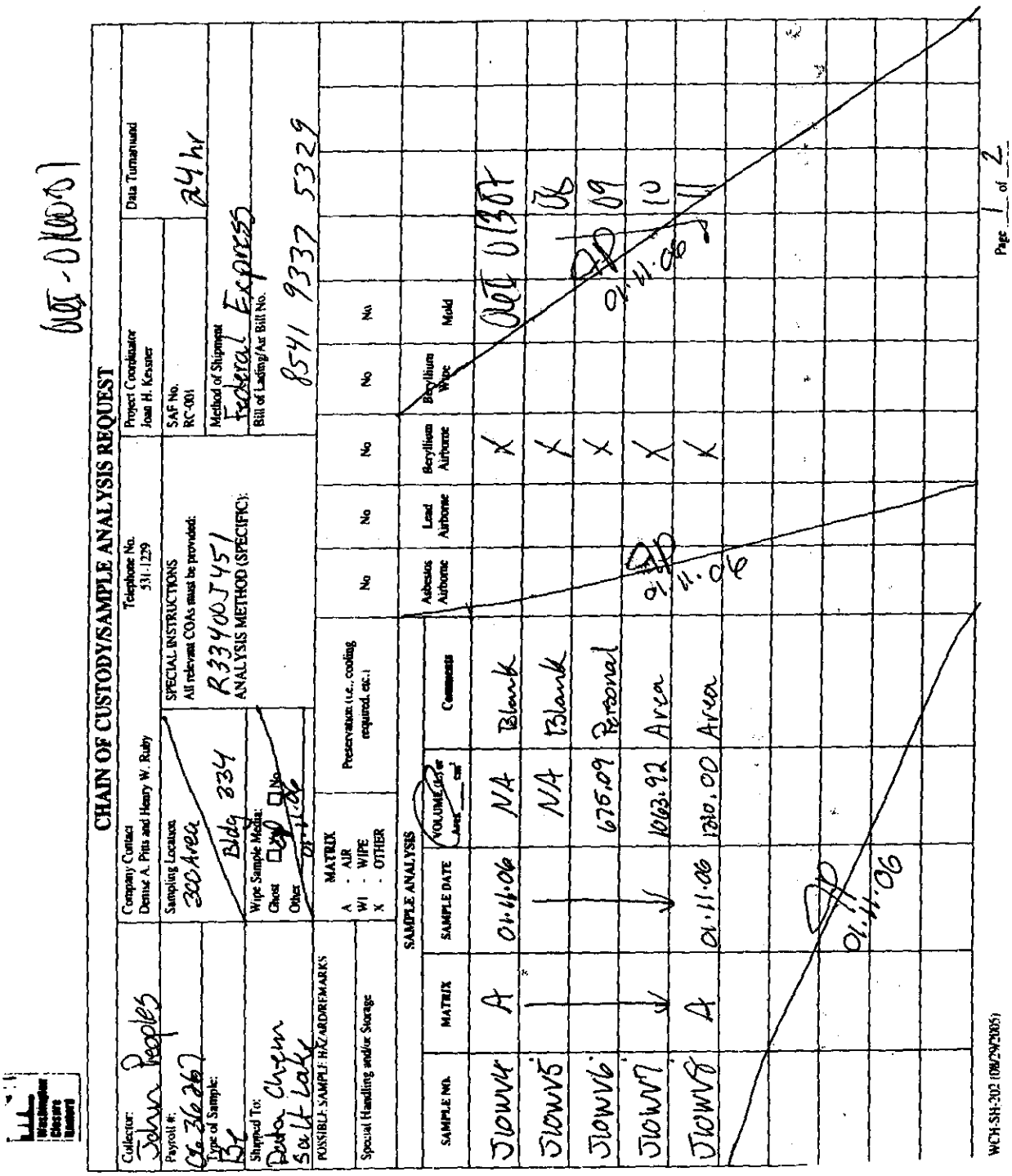
NA - Not Applicable
ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) * 100.0
MS, MSD Percent Rec. = ((Result – Parent) / Target) * 100.0

LCS, LCSD Relative Percent Diff. = ((|LCS – LCSD|) / ((LCS + LCSD)/2.0)) * 100.
MS, MSD Relative Percent Diff. = ((|MS – MSD|) / ((MS+ MSD)/2.0)) * 100.
LD Relative Percent Diff. = ((|Parent – LD|) / ((Parent + LD)/2.0)) * 100

DATA CHEM LABORATORIES

COC Page



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: Tonya Peoples
Company Contact: Denise A. Pitts and Henry W. Ruby
Telephone No.: 531-1229
Project Coordinator: Joan H. Kessler
Data Turnaround: 24 hr
Payroll #: 06 36 267
Sampling Location: 300 Area
SPECIAL INSTRUCTIONS: All relevant COAs must be provided: R334007451
SAF No.: RC-001
Type of Sample: BZ
Wipe Sample Media: Ghost ☐ Yes ☐ No; Other 37 mm filter
ANALYSIS METHOD (SPECIFIC):
Method of Shipment: Federal Express
Bill of Lading/Air Bill No.: 8541 9337 5329
Shipped To: Data Chem Salt Lake
POSSIBLE SAMPLE HAZARD/REMARKS:
Special Handling and/or Storage:
MATRIX: A - AIR; WI - WIPE; X - OTHER
Preservation (i.e., cooling required, etc.):

SAMPLE ANALYSIS

SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (Liters or cm²)	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold
					No	No	No	No	NA
300W4	A	01.4.06	NA	Blank			X		Not Used
300W5			NA	Blank			X		08
300W6			676.09	Personal			X		09
300W7			1063.92	Area			X		10
300W8	A	01.11.06	1330.00	Area			X		11

01.4.06
01.11.06

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WCH-SH-302 (08/29/2005)

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DATA CHEM LABORATORIES

COC Page

Enter on line below the first Sample Number from Page One:

J10WV4

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Signed	DATE / TIME	Received By/Signed	DATE / TIME
John Peeples / Jon Driggers/	01.11.06 / 1430	Locked Cabinet Room 16 Bldg 3746	01.11.06 / 1433
3746 room 16 locked cabnit	1-16-06 / 1415	Rz Steffler R.J. Steffler	1-16-06 / 1415
Rz Steffler R.J. Steffler	WCH 1-16-06 1500	Fed Ex	
Fed Ex		Mardel Edwards	1/16/06 / 745
Mardel Edwards	1/16/06 / 745		

LABORATORY SECTION	Received By	Title	DATE / TIME
	Mardel Edwards		1/16/06 / 745

REVIEWED BY: _____ DATE: _____

PRINT/SIGN NAME

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: John Peoples	Company Contact: Denise A. Pitts and Henry W. Ruby	Telephone No.: 531-1229	Project Coordinator: Joan H. Kessner	Data Turnaround: 24 hr
Payroll #: 06 36267	Sampling Location: 300 Area, Bldg 334	SPECIAL INSTRUCTIONS: All relevant COAs must be provided:	SAF No.: RC-001	
Type of Sample: BZ		ANALYSIS METHOD (SPECIFIC):	Method of Shipment: Federal Express	
Shipped To: Data Chem Salt Lake	Wipe Sample Media: Ghost ☐ Yes ☐ No; Other 01.11.06		Bill of Lading/Air Bill No.: 8541 9337 5329	
POSSIBLE SAMPLE HAZARD/REMARKS; Special Handling and/or Storage	MATRIX: A - AIR; WI - WIPE; X - OTHER	Preservation (i.e., cooling required, etc.)		

SAMPLE ANALYSIS					No	No	No	No	No				
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area ____ cm²	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold				
J10WV4	A	01.11.06	NA	Blank			X						
J10WV5	↓	↓	NA	Blank			X						
J10WV6			675.09	Personal			X		01.11.06				
J10WV7			1063.92	Area	01.11.06		X						
J10WV8	A	01.11.06	1310.00	Area			X						
		01.11.06											

COPY

FIELD SAMPLE COPY

Enter on line below the first Sample Number from Page One:

J10WV4

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Stored	DATE / TIME	Received By/Stored	DATE / TIME
John Peeples	01.11.06 / 1430	Locked Cabinet Room 16 Bldg 3746	01.11.06 / 1433
Dan Driggers / ~~[illegible]~~			
3746 room 16 locked cabnit	1-16-06 / 1415	RZ Steffler R.J. Stuffl	1-16-06 / 1415
RZ Steffler R.J. Stuffl WCH	1-16-06 1500	Fed Ex	

LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: _____

PRINT/SIGN NAME